

## C4 and CAM Plants

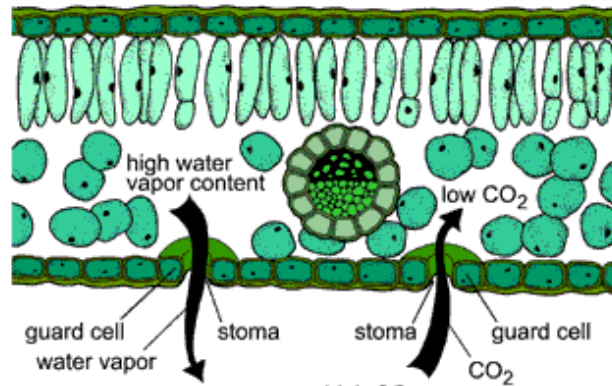
Plant needs:

Evolved structures

For light rxns:

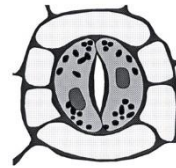
For Calvin cycle:

C3 leaf xsection



Stomates:

Closed stomates leads to...



Inefficiency of RuBisCo

In \_\_\_\_\_ cycle

Calvin cycle with abundant **CO<sub>2</sub>** makes \_\_\_\_\_

Calvin cycle with abundant **O<sub>2</sub>** makes \_\_\_\_\_ without \_\_\_\_\_

Pyrenoids

Impact of Photorespiration

Oxidation of RuBP

Reducing Photorespiration

Separating \_\_\_\_\_ from \_\_\_\_\_

C4 Plants

CAM Plants

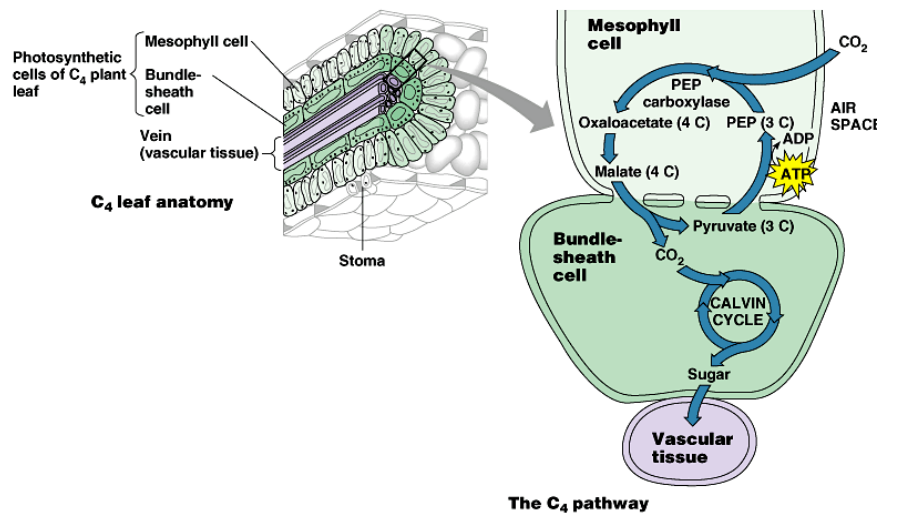
C4

Important carbon-fixing enzyme:

Adaptive for:

Examples

Leaf Anatomy:



CAM

Separates

by

Night

Day

Examples

Summary:

Solves

C4

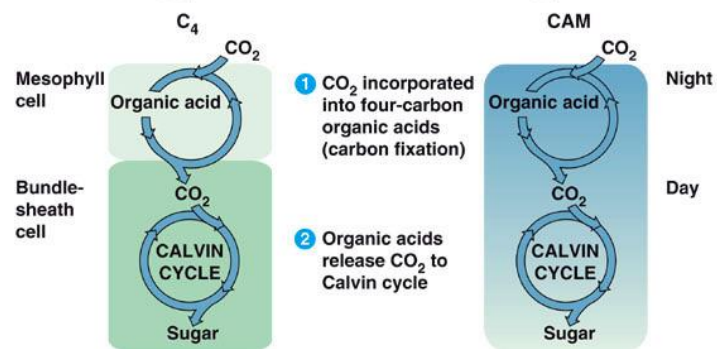
CAM



Sugarcane



Pineapple



C3's Evolutionary Baggage

Today's atmospheric content:

It's ALWAYS good to be able to discuss adaptive value